UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,877	09/29/2003	Harry Schilling	5858-01400	9209

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EXAMINER
LU, ZHIYU

ART UNIT	PAPER NUMBER
2618	

MAIL DATE	DELIVERY MODE
12/07/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/674,877	SCHILLING ET AL.
	Examiner	Art Unit	
	ZHIYU LU	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 August 2009*.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2 and 4-12* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2 and 4-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   In view of the APPEAL BRIEF filed on 8/26/2009, PROSECUTION IS HEREBY

REOPENED. New rejections are set forth below.

        To avoid abandonment of the application, appellant must exercise one of the following

two options:

        (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37

CFR 1.113 (if this Office action is final); or,

        (2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an

appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee

can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have

been increased since they were previously paid, then appellant must pay the difference between

the increased fees and the amount previously paid.

        A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing

below:

        /Duc Nguyen/

        Supervisory Patent Examiner, Art Unit 2618.

Response to Arguments

1.   Applicant's arguments, see APPEAL BRIEF, filed 08/26/2009, with respect to the

rejection(s) of claim(s) 2 and 8 under 102 have been fully considered and are persuasive.

Therefore, the rejection has been withdrawn. However, upon further consideration, a new

ground(s) of rejection is made in view of Rider (US5264795) and Meinke (US4193123).

<div align="center">

Claim Rejections - 35 USC § 103

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

2.   Claims 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rider

(US5264795) in view of Meinke (US4193123).

Regarding claim 2, Rider teaches device for broadband transmission of digital signals between at

least one first unit and at least one second unit mobile along a predetermined path relative to said

first unit, via non-contacting rotary joints, wherein said first unit (100 of Figs. 5-6) comprises:

    a data source for generating a serial data stream (145 of Fig. 6, column 9 lines 34-37);

    a transmitter (170 of Fig. 6) for generating electrical signals from said serial data stream

from said data source;

    a controller (110 of Fig. 6) coupled between said data source and said transmitter for

controlling said serial data stream, wherein said controller comprises:

            means for storing (RAM of Fig. 7, wherein input data processed by

microcontroller obviously goes through a temporary storage area) data from the serial data

stream; and

means for outputting (114, 115, 117-118 of Fig. 7) the stored data to said

transmitter in accordance with the desired value of data rate or data package size (column

10 lines 3-45, programmable timer for desired rate); and

a transmitter conductor array (20 of Fig. 5) for conducting said electrical signals

generated by said transmitter;

wherein said second unit (200 of Figs. 5-6) comprises:

a receiving antenna (290 of Fig. 6) for tapping electrical signals in the near field of said

transmitter conductor array;

a receiver (260 of Fig. 6) for receiving the signals tapped by said receiving antenna; and

a data sink (210 of Fig. 6) for subsequent processing of the signals received by said

receiver.

Rider does not expressly disclose converting a data rate or data package size of said data source

into a desired value of data rate or data package size.

However, Rider teaches said data source being from a personal computer (column 9 lines 34-37,

which is digital data packet) and processing/modulating said serial data stream from said data

source with a default baud rate (column 10 lines 4-45, column 12 lines 55-63). And data rate/bit

rate is the product of the symbol rate (baud rate) and the number of bits encoded in each symbol.

It would have been obvious to one of ordinary skill in the art to recognize that the data rate of the

source of Rider does changed in the processing through the transmitter.

Meinke teaches digital-to-analog converter requiring data rate conversion between a digital

information source and the converter itself (column 1 lines 12-19).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the data rate conversion taught by Meinke into the converters of Rider, in order to provide an interface between arrangements that operate at different rates.

Regarding claim 8, Rider and Meinke teach a method of broadband transmission of digital signals between at least one first unit and at least one second unit mobile along a predetermined path relative to said first unit, via non-contacting rotary joints as explained in response to claim 2 above.

Regarding claim 6, Rider and Meinke teach the limitation of claim 2.

Rider teach further comprising a micro controller is provided for controlling or diagnosing the system (Processor of Fig. 7).

Regarding claim 7, Rider and Meinke teach the limitation of claim 1.

Rider teaches wherein the system is self-learning and adapts itself dynamically to respective conditions of operation, (column 25 lines 7-40, where a tank circuit provides information for microcontroller to determine the desired operating mode for transmitter).

Regarding claim 12, Rider and Meinke teach the limitation of claim 2.

Rider teaches further comprising a decoder (210 of Fig. 6, 611 of Fig. 14) coupled to or included

within said receiver for converting a data rate or data package size of the signals received by said

receiver into the data rate or data package size generated by said data source.

3.   Claims 4 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rider

(US Patent#5264795) in view of Meinke (USUS4193123), Richley et al. (US Patent#5437057)

and Waters et al. (US Patent#6611776).

Regarding claims 4 and 9, Rider and Meinke teach the limitations of claims 2 and 8.

But, Rider and Meinke do not expressly disclose wherein the desired value is determined by a

desired-value generator according to actual transmission characteristics of a data transmission

path between said transmitter and said receiver.

Richley et al. teach near field coupling is employed for transferring data back and forth between

stations (abstract, Figs. 4-5), which would have been obvious for one of ordinary skill in the art

to incorporate into the devices of Rider and Meinke with modification of near-field transceiver

taught by Richley et al., in order to enable two-way communication.

Waters et al. teach a controller is provided for controlling said data stream by signaling a desired

value of data rate to said transmitter for short-range wireless communication (4 of Fig. 1, column

3 line 66 to column 4 line 15), which is to inform the transmitter data rate adjustment needed

based on the characteristics of the data transmission path.

Despite difference in wireless communication protocols, modification for communication

feedback in improving communication quality would have been an obvious feature in wireless

communication for one of ordinary skill in the art.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention

was made to incorporate having controller informed of changing data rate taught by Waters et al.

into the device of Rider, Meinke and Richley et al., in order to maintain or improve

communication quality.

Regarding claim 10, Rider, Meinke, Richley et al., and Waters et al. teach the limitation of claim

9.

Rider, Meinke, Richley et al., and Waters et al. teach wherein said step of controlling the serial

data stream comprises supplying the desired value of data rate or data package size to said

transmitter as explained in response to claim 9 above.

Regarding claim 11, Rider, Meinke, Richley et al., and Waters et al. teach the limitation of claim

10.

Rider, Meinke, Richley et al., and Waters et al. teach wherein said step of controlling the serial

data stream comprises storing data from the serial data stream if the desired data rate is lower

than a rate at which the serial data stream is generated by the data source in said generating step

(obvious because a temporary storing is needed for data rate conversion)

4.   Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rider (US

Patent#5264795) in view of Meinke (US4193123), Richley et al. (US Patent#5437057) and

Marchetto et al. (US Patent#5914959).

Regarding claim 5, Rider and Meinke teach the limitation of claim 2.

But, Rider and Meinke do not expressly disclose further comprising an analyzer coupled between

said receiver and said data sink, wherein said analyzer is configured for signaling incorrectly

transmitted data to said controller by means of an additional transmission path, and wherein said

controller is configured for repeating said incorrectly transmitted data packages upon request by

said analyzer.

Richley et al. teach near field coupling is employed for transferring data back and forth between

stations (abstract, Figs. 4-5), which would have been obvious for one of ordinary skill in the art

to incorporate into the devices of Rider and Meinke with modification of near-field transceiver

taught by Richley et al., in order to enable two-way communication.

Marchetto et al. teach an analyzer coupled between said receiver and said data sink, wherein said

analyzer is configured for signaling incorrectly transmitted data to said controller by means of an

additional transmission path, and wherein said controller is configured for repeating said

incorrectly transmitted data packages upon request by said analyzer (abstract, Fig. 2, column 1

line 57 to column 3 line 30).

Despite difference in wireless communication protocols, requesting retransmission for detecting

error data for completing data reception would have been an obvious feature in wireless

communication for one of ordinary skill in the art.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention

was made to incorporate having means for requesting retransmission taught by Machetto et al.

into the device of Rider, Meinke, and Richley et al., in order to provide resilient communication.

Conclusion

5.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to ZHIYU LU whose telephone number is (571)272-2837. The

examiner can normally be reached on Weekdays: 9AM-5PM.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Duc Nguyen can be reached on (571) 272-7503. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

        Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

                                                Zhiyu Lu
                                                Examiner
                                                Art Unit 2618

/Zhiyu Lu/
Examiner, Art Unit 2618
December 3, 2009

/Duc Nguyen/
Supervisory Patent Examiner, Art Unit 2618